

Amendments to the Claims:

1. (Cancelled)

2. (Cancelled)

3. (Currently amended) A mud pulse assembly for producing mud pulses for communicating during directional drilling data telemetry, comprising:

a removable mud pulse generator for positioning in a landing sub body, said removable mud pulse generator having an outlet end, and

a retainer for releasably engaging said removable mud pulse generator in said landing sub body, said retainer engaging said mud pulse generator at or upstream of said outlet end,

said retainer being remotely operable to release said removable mud pulse generator from said mud pulse assembly, wherein said retainer comprises at least one detent for retention of said removable mud pulse generator, and a coupler for preventing rotation of said removable mud pulse generator relative to said landing sub body, said removable mud pulse generator being adapted to receive said detent and engage said coupler. ~~The mud pulse assembly of claim 2,~~ wherein said at least one detent is a spring-actuated ball detent, biased towards said removable mud pulse generator.

4. to 8. (Cancelled)

9. (Currently amended) A mud pulse assembly for producing mud pulses for communicating during directional drilling data telemetry, comprising:

a removable mud pulse generator for positioning in a landing sub body, said removable mud pulse generator having an outlet end, and

a retainer for releasably engaging said removable mud pulse generator in said landing sub body, said retainer engaging said mud pulse generator at or upstream of said outlet end,

said retainer being remotely operable to release said removable mud pulse generator from said mud pulse assembly. ~~The mud pulse assembly of claim 4,~~

wherein said retainer comprises an anti-rotation latch receiver, a latch spacer and a thru-bore latch receiver, said anti-rotation latch receiver and said thru-bore latch receiver each having extended from one end a plurality of fingers, said plurality of fingers of each of said anti-rotation latch receiver and said thru-bore latch receiver interdigitating within said latch spacer, said anti-rotation latch receiver being retained in fixed position by means of bolts passing through said landing sub body and threadably engaging a key slider positioned within a recess of said anti-rotation latch receiver, said latch spacer being adapted to maintain said anti-rotation latch receiver in fixed spatial relationship relative to said thru-bore latch receiver.

10. (Original) The mud pulse landing assembly of claim 9, wherein each of said plurality of fingers of said anti-rotation latch receiver comprises a plurality of elongated longitudinal splines for mating with corresponding receiving elongated radial splines on said removable mud pulse generator, preventing rotation of said removable mud pulse generator relative to said mud pulse landing assembly.

11. (Original) The mud pulse landing assembly of claim 9, wherein each of said plurality of fingers of said thru-bore latch receiver comprises at least one detent for mating with said removable mud pulse generator, ensuring retention of said removable mud pulse generator in said mud pulse landing assembly, said removable mud pulse generator being adapted to receive said detent.

12. (Cancelled)

13. (Cancelled)

14. (Currently amended) A mud pulse assembly for producing mud pulses for communicating during directional drilling data telemetry, comprising:

a removable mud pulse generator for positioning in a landing sub body, said removable mud pulse generator having an outlet end, and

a retainer for releasably engaging said removable mud pulse generator in said landing sub body, said retainer engaging said mud pulse generator at or upstream of said outlet end,

said retainer being remotely operable to release said removable mud pulse generator from said mud pulse assembly. ~~The mud pulse landing assembly of claim 4,~~ wherein said retainer further comprises a retainer actuator and receiver for receiving an actuating signal, said receiver on receiving said actuating signal acts to actuate said retainer actuator, releasing said removable mud pulse generator from said landing sub body.

15. (Cancelled)